

Comparisonal Evalulation of Clinical and paraclinical characteristics of Bronchial Asthma with Asthma and Rhinosinustis.

Abstract

Background: Asthma is the chronic inflammatory disease of lower airway that manifesting clinically as cough, dyspnea and wheeze. According to studies, asthma is frequently associated with rhinosinusitis and r/s can be a predisposing and exacerbating factor for asthma.

Regarding the direct role of R/S in Severity and control of asthma, we decided to assess and compare clinical and paraclinical characteristics of asthma base on the presence or absence of r/s in patients.

Methods and Materials: This cross sectional study was done from 1 Azar 1386 to 31 Tir 1387 on asthmatic Patients that refer to Ardabil Imam khomeini Hospital.

90 asthmatic patients were contributed in this study. The patients information consist of: 1. The severity of asthma symptoms and r/s history 2. Clinical findings (respiratory status, cyanosis and paradoxical pulse) 3.

Paraclinic findings (CXR, PNS – XR, spirometry, WBC count and eosinophilia).

In this study, comorbidity of asthma and r/s and influence of r/s on severity of asthma was evaluated.

The data of patients were analyzed utilizing SPSS Soft ware and T- test and chi- Squares.

Results: Among 90 asthmatic patients, 66 (73%) patients had evidences of R/S. 40 (60%) patients had the history of sinonasal symptoms. The most common symptom was nasal congestion (39.4%) and on PNS- XR the most common involved sinus was bilateral maxillary sinus (72. 7%) There was no meaningful difference in severity of symptoms between asthmatic patients with and without r/s , but most of asthmatic patients with r/s had moderate persistent symptoms and most of patients without r/s had mild intermittent and mild persistent symptoms. There was meaningful difference between asthma severity as measured by lung function test. (FEV= 83.13 in asthmatics without r/s versus 70.52, $P < 0.05$). In comparing the staging of asthma, the most of asthmatics with r/s were in Stage 3 (42.4%) but the most of patients without r/s were in stage 1 (%48.7) that was meaningful difference. ($p= 0.002$) In addition to, using of pharmacologic therapy, oral and injectional steroid, history of admission in hospital, signs of severe disease (Cyanosis and paradoxical pulse) in asthmatics with r/s were more than in patients without r/s.

There was no meaningful difference in WBC count and eosinophilia in two groups of patients.

Conclusion: Rhinosinusitis is frequently comorbid with asthma that may contribute to more severity and poor control of asthma and affect asthmatic severity as measured by lung function test.

Key words: Asthma, Rhinosinusitis, clinical, paraclinical